February 2004

Volume II of II

FINAL

Pertinent Correspondence – Appendix D

For the

Miami Harbor Navigation Study
General Reevaluation Report

Miami-Dade County, Florida - 010140

US Army Corps
of Engineers®

Jacksonville District
South Atlantic Division

APPENDIX D

PERTINENT CORRESPONDENCE

TABLE OF CONTENTS

APPENDIX D

PERTINENT CORRESPONDENCE

The study coordination effort was to keep the public informed and obtain feedback. The study participants are listed in this appendix along with the public views and comments obtained during the study.

STUDY PARTICIPANTS

Accomplishment of the study involved close coordination between the Corps of Engineers and the sponsor. The Corps of Engineers conducted the study, consolidated information from other agencies, formulated plans, and coordinated study findings at various points during the study. Coordination involved the following Federal and State agencies in addition to local interest and the sponsor, Miami-Dade County Seaport Department.

Federal
Fish and Wildlife Service
United States Coast Guard
Environmental Protection Agency
National Marine Fisheries Service

State
Department of Environmental Protection
Department of Natural Resources
State Historic Preservation Office
Florida Fish and Wildlife Conservation Commission
Florida Department of Transportation

WRITTEN COORDINATION AND RESPONSES

Coordination with local interests involved field visits and local interviews to obtain their views and provide information. The attached sheets list meetings in which the sponsor and involved agencies met with USACE to discuss the study.

Date	Group(s) Involved With USACE	Topic(s) Discussed
3/13/2000	Department of Environmental Resources Management Dial Cordy and Associates	Environmental Coordination
5/13/2000	Department of Environmental Resources Management National Marine Fisheries Service Department of Environmental Protection Environmental Protection Agency U.S. Fish and Wildlife Service Florida Fish and Wildlife Conservation Commission Port of Miami	Environmental Information Exchange Workshop
7/18/2000	All Port Users and Operators Port of Miami Curtis & Kimball	Overview of Project
11/1/2000	Port of Miami Department of Environmental Protection Environmental Protection Agency U.S. Fish and Wildlife Service Department of Environmental Resources Management Florida Fish and Wildlife Conservation Commission National Marine Fisheries Service	Discussion of Environmental Resource Survey Results
5/16/2001	Biscayne Bay Pilots	Review of Environmental Resource Survey Results And Proposed Navigation Improvements Review of Preliminary Ship Simulation Results
7/10/2001	Port of Miami	Environmental Impact Statement Kickoff Meeting
2/19/2002	Dial Cordy & Associates Inc.	Environmental Issues

Date	Group(s) Involved With USACE	Topic(s) Discussed
4/16/2002	Port of Miami Biscayne Bay Pilots Environmental Protection Agency Department of Environmental Protection U.S. Fish and Wildlife Service Department of Environmental Resources Management Florida Fish and Wildlife Conservation Commission National Marine Fisheries Service	Review of the 6 Potential Alternatives and Consequent Impacts
6/3/2002 to 6/7/2002	Dial Cordy and Associates	Mitigation Survey Field Trip Look At Mitigation Options
6/19/2002	Port of Miami Curtis & Kimball	Alternative Formulation Briefing Preparations
6/20/2002	USACE HQ Dial Cordy and Associates Port Pilots U.S. Fish and Wildlife Service Florida Fish and Wildlife Conservation Commission Department of Environmental Resources Management Department of Environmental Protection National Marine Fisheries Service	Alternative Formulation Briefing
7/3/2002	Port of Miami Curtis & Kimball Dial Cordy and Associates	Editing of Environmental Impact Statement
8/1/2002	Port of Miami Curtis & Kimball	Overall Schedule Utility Relocation Environmental Impact Statement
8/8/2002	Department of Environmental Protection Florida Fish and Wildlife Conservation Commission	Miami Harbor Blasting Issues (In Tallahassee)

file

March 15, 1999

Programs and Project Management Division
Project Management Office

Mr. Carl Fielland
Port of Miami-Dade
1015 North American Way
Miami, Florida 33132

Dear Mr. Fielland:

This letter is to inform you that we have initiated studies this fiscal year to examine channel improvements for Miami Harbor. As you know, the Committee on Transportation and Infrastructure of the U.S. House of Representatives authorized a study to consider deepening Miami Harbor. The funds for the study are now available. Jerry Scarborough, the project manager, will arrange a meeting with you near the end of this month to discuss the study process in more detail.

We look forward to working with you in the continued improvement of the Miami Harbor Federal channels. If you have any questions, please contact me at 904-232-2586 or Mr. Jerry Scarborough at 904-232-2042.

Sincerely,

SIGNED: Richard E. Bonner

Richard E. Bonner, P.E.
Deputy District Engineer for
Project Management

bcc:
CESAJ-PD-PN (D. Powell)

Powell/PD-PN
Schmidt/PD-PN
Strain/PD-P
Duck PD
Scarborough/DP-I
Duke/DP-A
Bonner/DP

I:\group\pd\spo1_ltr.doc

Planning Division
Plan Formulation Branch

Mr. Carl E. Fielland, Port Engineer
Port of Miami
1015 North American Way
Miami, Florida 33132

Dear Mr. Fielland:

As requested in our telephone conversation on September 22, 1999, the enclosed copies of our proposed draft environmental and economic analysis coordination letters are provided for your review. Both letters contain mailing lists related to different interest groups along with a copy of the drawing explaining the proposed modifications to the harbor. Please advise us if you require any changes to the mailing lists, draft letters, or the proposed modifications drawing.

As suggested in a September 7, 1999, e-mail message from Ms. Amy Kimball-Murley to Mr. Robert King of my staff, we agree that a letter from the Port Director will encourage recipients of the benefit analysis coordination letter to respond quickly and thoroughly. A sample letter for that purpose is enclosed for your consideration. The main purposes of the coordination letter are to initiate communication, establish points of contact with the port users, and identify potential benefits associated with the proposed navigation improvements.

If you have any questions concerning the enclosed information, contact Mr. Jerry Scarborough at 904-232-2042 or myself at 904-232-2586.

Sincerely,
SIGNED: Dennis R. Duke

Richard E. Bonner, P.E.
Deputy District Engineer
for Project Management

Enclosures

Copy Furnished:

Ms. Amy Kimball-Murley, AICP, The Curits & Kimball Company, 4101 Laguna Street, Coral Gables, Florida 33146
Ms. Nancy Case O'Bourke, P.E., 1521 Alton Road #112, Miami Beach, FL 33139

bcc:
CESAJ-PD-PN (D. Powell)
CESAJ-PD-ER (Boothby)
CESAJ-PD-D (King)

Planning Division
Plan Formulation Branch

Mr. Carl E. Fielland, Port Engineer
Port of Miami
1015 North American Way
Miami, Florida 33132

Dear Mr. Fielland:

During our visit to the Port of Miami on November 3, 1999, we agreed to correct proposed draft environmental and economic analysis coordination letters to include the revised alternatives discussed during that meeting. The enclosed letters contain the revised alternatives with a drawing explaining the requested modifications to the harbor. Based on additional information you provided, final mailing lists related to different interest groups are also included. Please advise us if you require any changes to the draft letters, the proposed modifications drawing, or mailing lists.

If no other changes are required, please notify us so that we can mail both the environmental and economic analysis coordination letters as soon as possible. We also understand Ms. Amy Kimball-Murley suggested additional revisions to the Port Director's cover letter for the economic analysis coordination letter and that the revised cover letter will be provided soon. As mentioned before, the main purposes of the benefit analysis coordination letter are to initiate communication, establish points of contact with the port users, and identify potential benefits associated with the proposed navigation improvements.

Thank you for providing the database of vessels visiting Miami Harbor. Our economists are using that information to expand their listings of vessels using the port's facilities. If you have any questions concerning the enclosed information, contact Mr. Jerry Scarborough at 904-232-2042 or myself at 904-232-2586.

Sincerely,

SIGNED: Dennis E. Duke

Richard E. Bonner, P.E.
Deputy District Engineer
for Project Management

Enclosures

Copy Furnished:

Ms. Amy Kimball-Murley, AICP, The Curtis & Kimball Company, 4101 Laguna Street, Coral Gables, Florida 33146

bcc:
CESAJ-PD-PN (D. Powell)
CESAJ-PD-ER (Boothby)
CESAJ-PD-D (King)

*** D R A F T ***

Planning Division
Environmental Branch

TO WHOM IT MAY CONCERN:

The Miami-Dade County Seaport Department of the Port of Miami has requested that the U.S. Army Corps of Engineers (Corps), Jacksonville District, study the feasibility of widening and deepening portions of Miami Harbor, Dade County, Florida (enclosure 1). To assist in this effort, the Corps is gathering information to define issues and concerns that will be addressed in a general reevaluation and review (GRR) study of Miami Harbor to consider modifying portions of the deep draft navigation project.

Six alternatives identified by the Biscayne Bay Pilots and the Miami-Dade County Seaport Department are under consideration as indicated on the enclosed drawing and described below:

- The first involves flaring the existing 500-foot wide entrance channel to provide an 800-foot wide entrance at buoy 1. Deepening of the entrance channel along Cut-1 and Cut-2 from an existing depth of 44 feet in one-foot increments to a depth of 52 feet will receive consideration.

- The second alternative will consider adding a turn widener between buoys 13 and 15 and deepening to depths of 50 feet.

- Alternative three involves extending the existing Fisher Island turning basin to the north. A turning notch (1600 feet by 1450 feet) extending approximately 500 feet to the north of the existing channel edge along the West End of Cut-3 would require evaluation. Depths from 43 to 50 feet at one-foot increments below the existing depth of 42 feet will receive consideration in the area of the turning notch.

- Alternative four consists of relocating the main channel (cruise ship channel or Cut-4) about 175 feet to the south between channel miles 2 and 3 over a two or three degree transition to the existing cruise ship turning basin. No

dredging is expected for alternative four since existing depths allow for continuation of the authorized depth of 36 feet.

- Alternative five proposes to increase the width of the Lummus Island Cut (Fisherman's Channel) about 100 feet to the south of the existing channel. Deepening would include examination of depths below the existing 42-foot depth at one-foot increments from 43 to 50 feet along the proposed widened channel from Cut-3, Station 0+00 to Cut-3, Station 42+00.

- Alternative six includes deepening of Dodge Island Cut and the proposed 1200-foot turning basin from 32 and 34 feet to 36 feet. It also involves relocating the western end of the Dodge Island Cut to accommodate proposed port expansion.

Examination of the impacts of the proposed dredging alternatives on the harbor system and shoreline processes is also part of the study. During the study our objectives include identifying any problems and needs associated with deep-draft vessel movements serving cargo and cruise ship facilities within Miami Harbor and seeking a solution.

Approval of a prior study allowed the Port of Miami's Miami-Dade County Seaport Department to improve the entrance channel and deepen it from 38 feet to 44 feet during the past Phase I construction effort. That work included addition of a widener on the north side of Government Cut at the Fisher Island turning basin along with deepening from 36 feet to 42 feet through the Fisher Island turning basin to the first half of the Lummus Island Cut or Fisherman's Channel. Under the same authorization the Port of Miami's current Phase II deepening involves extending the 42-foot depth to the end of the Lummus/Dodge Island turning basin.

The Corps welcomes your views, comments, suggestions, and any information about resources, study objectives, and important features within the described study area. Letters of comment or inquiry should be addressed to the letterhead address to the attention of Planning Division, Environmental Coordination Section and received by this office within thirty (30) days of the date of this letter.

Sincerely,

James C. Duck
Chief Planning Division

July 10, 2000

Planning Division
Plan Formulation Branch
Coastal/Navigation Section

Dr. Al Devereaux
Director, Office of Beaches and Coastal Systems
Florida Department of Environmental Protection
3900 Commonwealth Boulevard
Mail Station 300
Tallahassee, Florida 32399-3000

Dear Dr. Deveraux:

A conference call was recently held between our respective staffs to discuss ways to improve Corps/FDEP project development/permit decision process for Federal Civil Works projects. It was suggested during the call that a member of your staff join the study teams of some of our current studies. One of the studies suggested was the Miami Harbor General ~~Review~~ Report (GRR).
Re-evaluation

The Miami Harbor GRR will consider six alternatives that involve a combination of deepening and widening measures as outlined on the enclosed drawing. Responses from FDEP's letter dated February 22, 2000 have already helped us understand environmental concerns related to the proposed alternatives. Mr. David Mayer's (FDEP) participation in our environmental workshop at DERM on March 13, 2000 also helped us gain additional information concerning Biscayne Bay environmental resources.

Our next Miami Harbor GRR study team meeting is scheduled for July 18, 2000, 1:00 p.m., at the Port of Miami, 1015 N. America Way, 2nd Floor, Miami, Florida. That meeting will include discussions with port users, harbor pilots, and the Port Authority to discuss problems, needs, and opportunities. This is an important step toward determining the without project, existing, and future conditions and development of alternative plans of improvement.

We invite your active participation in the study, including attending study team meetings. We look forward to working together on these important efforts.

Sincerely,

James C. Duck
Chief, Planning Division

Enclosure

Copy Furnished:
Mr. Carl E. Fielland, Port Engineer, Port of Miami, 1015 N. America Way, 2nd Floor, Miami, Florida 33132

Ms. Amy Kimball-Murley, AICP, The Curtis & Kimball Company, 4101 Laguna Street, Coral Gables, Florida 33146

bcc:
CESAJ-DP (Bonner)
CESAJ-DP-A (Duke)
CESAJ-DP-I (Scarborough)
CESAJ-PD-E (Smith)
CESAJ-PD-ER (Dugger)
CESAJ-PD-ER (Boothby)
CESAJ-PD-P (Strain)
CESAJ-PD-PN (Schmidt)

CESAJ-PD-PN Powell/1694
CESAJ-PD-PN Schmidt
CESAJ-PD-P Strain
CESAJ-PD-ER Boothby
CESAJ-PD-ER Dugger
CESAJ-PD-E Smith
CESAJ-DP-I Scarborough
CESAJ-DP-A Duke
CESAJ-DP Bonner
CESAJ-PD Duck

L:\group\pdp\rbp\dep2_ltr_7_7_00

August 30, 2000

Planning Division
Plan Formulation Branch

Dr. Susan Markley
Miami-Dade Department of Environmental Resources Management
33 Southwest 2nd Avenue
Miami, Florida 33130

Dear Dr. Markley:

As you know, a proposed marine environmental baseline survey of Miami Harbor and vicinity will be accomplished as part of the ongoing Miami Harbor studies. We issued a Notice-To-Proceed (NTP) on a task contract order to Dial/Cordy Consultants to initiate this work on August 29, 2000.

The contract allows 90 days for completion of the required fieldwork. Collection of initial data is anticipated to require about two weeks. After the contractor has mobilized and completed a preliminary overview of the study area, we will coordinate with you to determine the best time for the Miami-Dade Department of Environmental Resources Management (DERM) and other interested state and Federal resource agencies to join the survey. We will set up a meeting with DERM to review the results after completion of data processing.

Thank you for assisting us in understanding environmental concerns relating to the study alternatives for Miami Harbor. If you have any questions concerning the enclosed information, contact our Project Manager Jerry Scarborough at 904-232-2042 or David Schmidt at 904-232-1697.

Sincerely,

James C. Duck
Chief, Planning Division

Copy Furnished:

Carl E. Fielland, Port Engineer, Port of Miami
Ms. Amy Kimball-Murley, AICP, The Curtis & Kimball Company
Ms. Nancy Case O'Bourke, P.E., Case O'Bourke Engineering Inc.
Mike Johnson, National Marine Fisheries Service
Chuck Sulzman, US Fish and Wildlife Service

bcc:
CESAJ-PD-ER (R. Boothby)
CESAJ-PD-EE (G. Schuster)
CESAJ-DP-I (J. Scarborough)

Powell/PD-PN
Schmidt/PD-PN
Strain/PD-P
Smith/PD-E
Hundley/CT-C
Scarborough/DP-I
Duke/DP-A
Bonner/DP
Dunk/PD

L:\group\pdp\rbp\DERM _ltr_8_25_00.doc

file

Planning Division
Plan Formulation Branch

Mr. Carl E. Fielland, Port Engineer
Port of Miami
1015 North American Way
Miami, Florida 33132

Dear Mr. Fielland:

Receipt of preliminary ship simulation results has allowed further evaluation of the environmental resource surveys for Miami Harbor in relation to the current alternatives. The enclosed drawings include modifications to alternative-one (the entrance channel widener) and alternative-three (the Fisher Island Turning Basin) that will either avoid or reduce impacts to environmental resources.

A review of those proposed changes with the Biscayne Bay Pilots association will allow us to determine the best approach to avoid the impacted environmental resources and still provide the changes required to improve navigation of the Federal channels. From your May 8, 2001, telephone conversation with Jerry Scarborough tentative dates of May 15 or May 16, 2001, have been suggested for a meeting at your office with the Biscayne Bay Pilots to review the proposed changes.

Please contact Jerry Scarborough at 904-232-2042 to confirm the most convenient time and place that suits you and the Biscayne Bay Pilots. Thank you for your continued support and assistance.

Sincerely,

Richard E. Bonner, P.E.
Deputy District Engineer
for Project Management

Enclosures

Copy Furnished:

Ms. Amy Kimball-Murley, AICP, The Curtis & Kimball Company, 4101 Laguna Street, Coral Gables, Florida 33146

Captain John Fernandez, Biscayne Bay Pilots, 2911 Port Blvd. Miami, Florida 33132

bcc:
CESAJ-PD-PN (D. Powell)
CESAJ-PD-ER (Boothby)
CESAJ-PD-D (King)
CESAJ-EN-HI (Choate)
CESAJ-EN-HI (Sylvester)
CESAJ-EN-DL (Henderson)

Powell/PD-PN
Schmidt/PD-PN
Strain/PD-P
Sylvester/EN-HI
Choate/EN-HI
Henderson/EN-DL
Duda/PD
Scarborough/DP-I
Dollar/DP-A
Bonner/DP

L:\group\pdp\Rbp\sponsor4_ltr.doc

Richard B Powell
07/07/2000 02:21 PM

To: carlef@miami-dade.fl.us@SMTP@Exchange
cc: Jerry W Scarborough/CESAJ/SAJ02, David V Schmidt/CESAJ/SAJ02, Shashi Makker/CESAJ/SAJ02, Gerald DeLoach/CESAJ/SAJ02
Subject: Miami Harbor GRR Relocations

Mr. Carl Fielland,

Thank you for your July 5, 2000 letter concerning sewer line relocations.

Relocation of the sewer line between Miami Beach and Fisher Island in the area of alternatives two and five depends on how many feet of deepening the economic analysis justifies. As mentioned in our July 5, 2000 telephone conversation with Jerry Scarborough, our design criteria generally requires six feet between the project depth of the navigation channel and the top of any pipeline. That six-foot clearance also extends about 25 feet beyond the edges of the channel bottom.

When our mechanical and electrical engineering design section has finished coordinating with the utility companies in the Miami area to locate not only the sewage force mains, but any other utility line that may cross the project study area, identification of the utility lines requiring relocation will be made based on the justified project depth, economic, and other environmental considerations. Our current schedule indicates that process should complete by December of this year. As soon as the evaluation is completed, we will discuss the results with you.

Could we also get a copy of any utility location drawings you may have. When we visit you on July 18, 2000, I would like to borrow any drawings you may have at that time. I will return them after copies are made.

Sincerely,

Dick Powell

JUL 16 2001

Planning Division
Plan Formulation Branch

Captain John R. Fernandez
Biscayne Bay Pilots
2911 Port Boulevard
Miami, Florida 33132

Dear Captain Fernandez:

The enclosed drawing contains modifications to the proposed study alternatives based on the recommendations of you and Captain Stephen McDonald at the Port of Miami offices on May 16, 2001. The enclosed drawing includes modifications to alternatives1, 2, 3, and 5 that will either avoid or reduce impacts to environmental resources.

Approval of those proposed changes by the Biscayne Bay Pilots association will allow us to continue calculations for our quantity and cost estimates. Please provide a written response by July 23, 2001.

Contact Jerry Scarborough at 904-232-2042 or Philip Sylvester at 904-232-1142 if you have any questions concerning the proposed changes. Thank you for your continued support and assistance.

Sincerely,

Richard E. Bonner, P.E.
Deputy District Engineer
for Project Management

Enclosure

Copy Furnished:

Ms. Amy Kimball-Murley, AICP, The Curtis & Kimball Company, 4101 Laguna Street, Coral Gables, Florida 33146

Carl E. Fielland, Port Engineer, Port of Miami, 1015 N. America Way, 2nd Floor, Miami, FL 33132

bcc:
CESAJ-PD-PN (D. Powell)
CESAJ-EN-HI (Choate)
CESAJ-EN-HI (Sylvester)
CESAJ-EN-DL (Henderson)

7-9-01 RBP Powell/PD-PN/SLW 7/5/01
Schmidt/PD-PN
Strain/PD-P
Sylvester/EN-HI
Choate/EN-HI
Henderson/EN-DL
Duck/PD
Scarborough/DP-I
Dollar/DP-A
Bonner/DP

L:\group\pdp\Pilots_ltr.doc

July 20, 2001

Engineering Division
Design Branch

Mr. John Cherlog
Assistant Director, Engineering/Planning
Miami-Dade Water and Sewer Department (WASD)
P.O. Box 330316
Miami, FL 33233-0316

Dear Director Cherlog:

The U.S. Army Corps of Engineers is preparing an engineering appendix of the General Reevaluation Report for various improvements at Miami Harbor that may affect utility lines crossing the channels. The proposed improvements are shown highlighted on the enclosed sheet. Be advised that no decision has been made to accomplish either of the proposed improvements.

The purpose of this letter is to notify your agency of the reevaluation report and to request your assistance in compiling information regarding utilities at Miami Harbor.

At the request of Dade County, the Corps of Engineers will incorporate the sewer main relocation in work to be performed with other construction work at the harbor should channel improvements Alt 2a and 3b be accomplished. Please return by August 13, as-built drawings for the 52-inch force sewer main crossing the channels at Miami Harbor marked to show the locations, characteristics, and elevations or depths. Additionally, locations, depths and pipe characteristics are requested for the two water mains also shown on the enclosed drawing.

Thank you for your cooperation in this matter. The technical point of contact for discussion of these relocations is Mr. Gerald DeLoach at 904-232-1050; FAX 904 232-2131.

Sincerely,

Edward E. Middleton, Ph.D., P.E.
Chief, Engineering Division

Enclosure

bcc (wo/encl.):
CESAJ-DP-I (J. Scarborough)
CESAJ-PD-PN (R. Powell)

DeLoach/CESAJ-EN-DM/1050
Makker/CESAJ-EN-DM
Leicht/CESAJ-EN-D
Sanders/CESAJ-EN-A

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
P. O. BOX 4970
JACKSONVILLE, FLORIDA 32232-0019

FEB 28 2001

REPLY TO
ATTENTION OF

Programs and Project Management Division
Project Management Branch

Mr. William M. Brant, P.E.
Director
Miami-Dade Water and Sewer Department
4200 Salzedo Street
Coral Gables, Florida 33146

Dear Mr. Brant:

This is in regard to your request for the U.S. Army Corps of Engineers (USACE) to accomplish the relocation of the 54" force main that crosses Government Cut between Miami Beach and Fisher Island. As you know, the USACE is currently involved in a study of Miami Harbor to determine if additional deepening of the harbor is justified. Since the force main crosses the Federal Navigation Channel, the potential relocation of the force main is already being addressed in the USACE study.

At the channel's current depth the force main is barely within USACE guidelines which stipulate that utilities that cross Federal navigation channels should be at a minimum of 6 feet below project depth. The crown of the force main is at an elevation of -50 feet and the current channel depth is -42 feet required plus an additional 2 feet of allowable overdepth. If the allowable overdepth is achieved, as it typically is, there is a maximum of six feet of cover over the force main. Therefore, if any additional deepening is justified by the USACE study, the relocation will be mandatory.

USACE policy stipulates that relocations are the responsibility of the local sponsor, which in this case is Dade County/Port of Miami. The Water Resources Development Act of 1986, Public Law 99-662, established the criteria for utility relocations. This states that "Non-Federal interests shall perform or assure the performance of all relocations of utilities necessary to carry out the project. In the case of a project in excess of 45 feet, one-half of the cost of each such relocation shall be borne by the owner of the facility being relocated and one-half of the costs of each such relocation shall be borne by the non-Federal interests." The relocation costs borne by the

local sponsor will be eligible for a credit of up to 10% of the total costs of the general navigation features of the project.

Since the relocation to be done is part of a federal navigation project, the relocation can be done by the USACE on behalf of the non-Federal sponsor at the sponsor's expense. An agreement will be required between Dade County/Port of Miami and the USACE in order to accept the funding to perform the relocation. Miami-Dade Water and Sewer Department can provide funds to Dade County/Port of Miami for the relocation, but the transfer of funds to the USACE must come through the local sponsor, Dade County/ Port of Miami.

Preliminary results from the deepening study will be available in August 2001. These results should indicate whether any deepening is justified, and subsequently, if the relocation of the force main is imperative. In the interim, at the request of the local sponsor, the agreement for the transfer of funds to the USACE for the relocations can be drafted and a scope of work identified. To ensure that the channel dredging is not impeded by existing utilities, all necessary relocations will be scheduled well in advance of the dredging.

Hopefully, this has explained how this relocation can proceed. If you have any additional questions or if additional information is needed, please contact our Project Manager, Mr. Jerry Scarborough, at 904-232-2042.

Sincerely,

Richard E. Bonner, P.E.
Deputy District Engineer
for Project Management

Port of Miami

OFFICE OF THE DIRECTOR • 1015 NORTH AMERICA WAY • 2ND FLOOR • MIAMI, FLORIDA 33132-2081 • PHONE (305) 371-PORT (371-7678) • FAX (305) 347-4843

July 5, 2000

Richard Powell
Civil Engineering Planning Division
USACE
P.O. Box 4970
Jacksonville, FL 32232

RE: GRR

Dear Mr. Powell:

In conjunction with Alternates #2 and #5, please consider whether or not the existing sewer line between Miami Beach and Fisher Island needs to be relocated. Your earliest response will be appreciated.

Sincerely,

C. Fielland

Carl E. Fielland
Port Engineer

Port of Miami

OFFICE OF THE DIRECTOR • 1015 NORTH AMERICA WAY • 2ND FLOOR • MIAMI, FLORIDA 33132-2081 • PHONE (305) 371-PORT (371-7678) • FAX (305) 347-4843

January 15, 2003 **VIA FACSIMILE & MAIL**

Mr. Richard Bonner
Deputy District Engineer
Project Management
US Army Corps of Engineers
400 W. Bay Street
Jacksonville, FL 32232-0019

Re: Port of Miami GRR
Economics Analysis

Dear Mr. Bonner:

Thank you for providing an opportunity for the Port of Miami to review draft economic assumptions for the Miami Federal Harbor Project GRR.

Our staff and consultants have analyzed data prepared by your team in response to the Advanced Formulation Briefing, and have also had a productive, informative dialog with your staff on key issues. The Port has information to contribute regarding two assumptions in the draft analysis: the controlling depth of ports on predicted itineraries; and, the growth projections for European and Asian imports.

An independent analysis conducted by the Port indicates that controlling depths for key U.S. East Coast Ports should be set at a minimum of 49' due to the status of approved and recommended deepening projects as well as the typical depths experienced at relevant European and Asian ports. A more detailed summary of our findings is included as Attachment A to this letter.

Further, the Port encourages the USACE to carefully review past growth rates for European and Asian markets, and supporting economic data, provided in Attachment B. The Port's analysis shows that Asian imports should be projected at 8.60 percent and European imports at between 11 and 12 percent.

Past USACE feasibility analysis of the Port of Miami (completed in 1989 for the existing authorized project), greatly underestimated cargo growth at the Port by almost 3,500,000 short tons for 2000. In fact, growth in exports was over two times higher than predicted, and growth in the Asian and European markets was three times that predicted for 2000 (see Attachment C). It is critical that the same underestimation is not repeated in the new study.

portofmiami@co.miami-dade.fl.us
MIAMI-DADE COUNTY FLORIDA **SEAPORT** DEPARTMENT
www.co.miami-dade.fl.us/portofmiami

We hope that the USACE will incorporate the Port's suggestions into its analysis. We are ready to provide additional input and support as the report moves towards further review by Headquarters.

Sincerely,

Charles A. Towsley
Port Director

Attachments

A: Controlling Depth Analysis
B: Memo dated January 13, 2003, from Lambert Advisory
C: Comparison of Projected Growth Rates in June 1989 Feasibility Study with Actual Rates

cc: Jerry Scarborough, USACE
Rene Perez, USACE
Bob King, USACE
Charles Towsley, Port of Miami
Gerry Cafiero, Port of Miami
Becky Hope, Port of Miami
Amy Kimball-Murley, The Curtis & Kimball Company
Paul Lambert, Lambert Advisory
Reading File

Insert: Pathname/Doc Name (9 pt)

Attachment A:
Analysis of Controlling Depths on Asian and European Itineraries

Issue: The draft Economics Appendix report establishes two important model trade routes for projection of post-Panamax vessel itineraries in the "with project" conditions at the Port of Miami. They are:

- Europe/US East Coast: Southampton, England; New York, US; Charleston; Miami, US; South Hampton, England.
- Mediterranean/US East Coast: Valletta, Malta; New York, US; Charleston, US; Miami, US; Valleta, Malta.
- Asia/US East Coast via Panama Canal: Hong Kong, China; Miami, US; Charleston, US; New York, US; Hong Kong, China.
- Asia/US East Coast via Suez Canal: Hong King, China; Valletta, Malta; Miami, US; Charleston, US; New York, US; Valletta, Malta; Hong Kong, China.

Depending upon the route, Miami is either the first or the last stop on the US East Coast.

The draft report assumes that depths at other key ports of call on European and Asian itineraries will limit the draft of vessels calling at the Port of Miami. Therefore, the USACE model does not assess benefits for post-panamax vessels for depths greater than the actual limiting port depth (including an additional tidal range factor) on the above-itineraries. The use of actual port depths causes benefits to end at 47' due to constraints at Charleston and New York harbors. Key Asian and European ports are all at 15 meters, or 49.2 feet.

Recommendation: The project timeframe for the Miami GRR study is 50 years, beginning in 2009. Port deepening and expansion projects are undergoing for all the US Ports in the model itineraries, as well as other major US east coast ports. Therefore, it appears reasonable to assess planned and approved port depths along the model itineraries and other major US ports and incorporate them into the model.

The top five US East Coast container ports are, in order of TEU movement in 2001: New York, Charleston, Norfolk (Hampton Roads), Savannah, and Miami (Source, AAPA, 2002). Not surprisingly, a review of proposed, approved and authorized deepening in the United States revealed that all five ports are in various stages of deepening construction, authorization, and study.

A table summarizing draft limitations existing today and predicted for the future, based on the status of federal deepening projects, is included below.

Port	Depth (existing or under construction)	Effective depth with tidal range factor	Expected depth	Expected effective depth with tidal range factor	Authoring mechanism for deepening
New York	45	47.3 [1]	50	52.3 [1]	WRDA 2000 [2]
Charleston	45	47.6 [3]	TBD	TBD	GRR (Congressionally funded 2001)
Norfolk (Hampton Roads)	45 inbound 50 outbound	47.6 [4]	50	52.6 [4]	Feasibility Study, Recommended NED Plan, December 2002 [5]
Savannah	42	45.6 [6]	48	51.6 [6]	WRDA 1999, pending Tier II EIS completion; study for additional depth expected
Miami	42	43.2 [7]	43-50	44.2 – 51.2 [7]	Current Study

(1) 4.6 feet mean tidal range, USACE, October 31, 2002
(2) Main channel scheduled for completion by 2009; total project by 2016
(3) 5.2 feet mean tidal range, USACE, October 31, 2002
(4) 45 feet depth plus half of 5.2 mean tidal range, as estimated from USACE, Economic Benefits of Channel Improvements at the Port of Hampton Roads, December 2002
(5) Estimated project completion by 2005, per USACE Economic Benefits of Channel Improvements at the Port of Hampton Roads, December 2002
(6) 3.6 feet mean tidal range, NOAA
(7) 2.5 feet mean tidal range, USACE, October 31, 2002

With the exception of Charleston, which is still in the study stage, all of the key US East Coast Ports have approved or recommended depths approaching 52' (when mean tidal range is considered). The Port of Miami would have equivalent operations with the shallowest of these ports (Savannah), with a dredged depth of 49.0 feet.

All of these U.S. ports will operate at depths consistent with key European and Asian Ports (15 meters or 49.2 feet, tidal range excluded). With European ports taken into account, it appears that the limiting depth used in the USACE analysis should be at least 49.0 feet.

Summary

The United States Army Corps of Engineers (Corps) is drafting a National Economic Benefit Report for the channel deepening at the Port of Miami which has certain assumptions associated with future cargo growth projections at the Port. These projections are important in that they influence the degree of benefit which accrues from further deepening of the channel and turning basin.

Our analysis indicates that the Corps current estimates of growth associated with European and Asian imports are below historical trends and do not fully take into account factors which are expected to drive import demand for the foreseeable future.

In the current draft report, the Corps estimates the annual growth in containerized import cargo to be 7.60 percent between 2001 and 2029 from both the European and Far East regions. Historic trends in these markets, between 1990-2002, have shown compound annual growth of 15 % and 8.14 % respectively. We believe there is a reasonable case to be made that European cargo will grow by 11 to 12 percent annually, and Far Eastern cargo will grow by at least 8.60 percent or 1.0 percent greater than currently projected. We believe that these projections will still allow the Corps to maintain a conservative stance within its overall analysis.

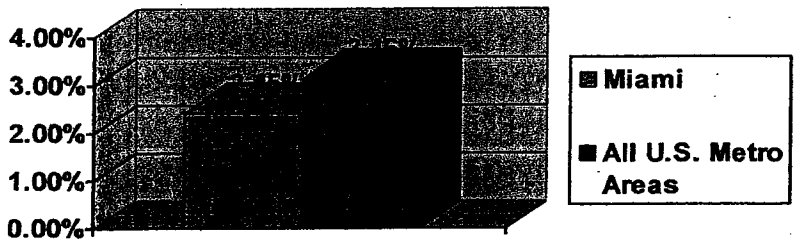
Support for these estimates is detailed below.

Far Eastern Cargo Trends

Between 1990 and 2000, the Port of Miami experienced a significant increase in imports of containerized cargo from the Far East. This increase was similar to Trans-Pacific Eastbound Containerized Trade into the United States, which grew at 9.1% per year (Mitsui O.S.K. Lines), Miami experienced a somewhat slower but similar trend, with 8.14% annual growth (Port of Miami).

Indeed, the Miami-Fort Lauderdale Consolidated Metropolitan Statistical Area (Miami CMSA) had slower Total Personal Income growth than the nation during the past decade. Total Personal Income generally shows a consistent positive correlation to cargo import trends (at least at the national level). The following graph shows Miami CMSA Total Personal Income growth between 1990 and 2000 against all metropolitan areas in the United States (all figures are in constant 1996 dollars).

Total Personal Income Growth:
Miami vs. MSA's 1990-2000
(Percent Change - Constant 1996 dollars)

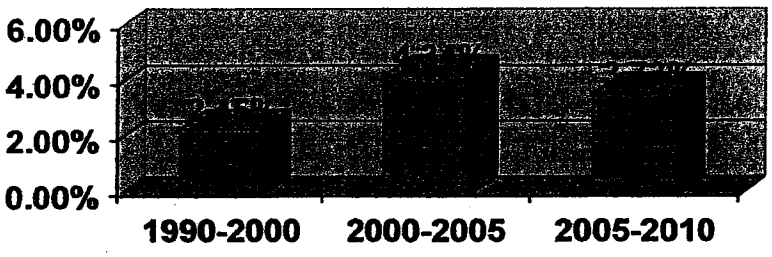


Source: U.S. Department of Commerce; NPA Data Research

More recently, despite slowing rates of growth in Personal Consumption Expenditure in the U.S over the past several years (2.5% in 2001and 3.4% annualized for 2002 vs. 4.9% in 1999 and 4.4% in 2000), the rate of growth in the Port of Miami's Asian imports has actually increased during the past two years. Short tons of Asian cargo increased by approximately 11 percent per year between 2000 and 2002 (compound annual growth). This growth is partially due to the fact that the Miami CMSA is now experiencing increased rates of Personal Income Growth which is in contrast to much of the United States and particularly other markets served by major east coast ports.

The following table depicts historical and projected annual Total Personal Income growth for the Miami metro area for the periods 1990-2000, 2001-2005, and 2005-2010. The projections are developed as part of NPA Data Services' regression model which projects population, income and construction trends for all 315 metropolitan areas of the United States. The model is updated semi-annually and has served as one of the most respected regional projection models available for over a decade.

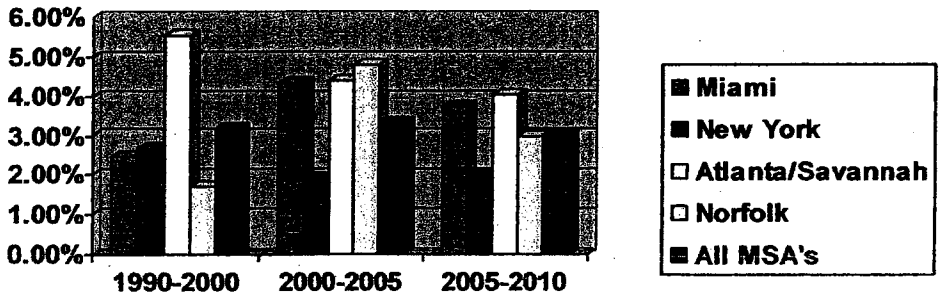
Historical and Projected Personal Income Growth
(1990-2010):
Miami CMSA
(Percent Change - Constant 1996 Dollars)



Source: U.S. Department of Commerce; NPA Data Research

While NPA projects a decline in the growth rate of Total Personal Income for some of the other major U.S. markets served by the largest containerized ports on the east coast of the United States between 2000 and 2005 (with the exception of Norfolk), Miami's is projected to increase at a 4.3% rate between 2001 and 2005 in comparison to 2.5% during the period between 1990 and 2000. The following graph shows a comparison between historical trends and NPA's projections for Miami in comparison to Savannah/Atlanta, New York, Norfolk, and all U.S. Metropolitan Statistical Areas. It should be noted that all data is presented for the Consolidated Metropolitan Statistical Areas when one exists (in this case, Miami and New York).

Historical and Projected Personal Income Growth
(1990-2010):
Miami CMSA vs. Selected Other Markets
(Percent Change - Constant 1996 Dollars)



Source: U.S. Department of Commerce; NPA Data Research

We believe the enhanced personal income growth, which already took hold in the later part of the 1990's and is expected to continue, is the result of a "catching up" from the lingering impacts of Hurricane Andrew in late 1992 which caused a forced out migration from the region. If not for the impact of Hurricane Andrew, Miami CMSA Total Personal Income would have grown at a significantly faster rate through the 1990's. In 1992 alone there was an actual decrease in Total Personal Income in the region of approximately 4 percent. Only recently has the region entirely caught up from this shock to the regional economy.

Given the enhanced growth in Asian cargo imports to Miami during the past two years in the face of a broad national economic downturn, and the fact that an independent respected source projects that the a principal driver of consumption and trade in a regional economy (Total Personal Income) will increase at a significantly faster pace in the future than has been the case during the last decade, there is a reasonable expectation that future growth will at least meet the pace of the last twelve years (8.56 percent annual growth) and may even exceed that rate.

For the above reasons, we encourage the Port to make a case to the Corps of Engineers that Asian import growth in their model should be increased to at least the historical 8.6 percent growth rate. Additionally, the model should be updated to include historical 2001 and 2002 figures as well which only support these higher projections.

European Cargo Trends

The case for increasing the Corps model's growth rate of European imports for the Port of Miami is entirely different than the case for increasing Far Eastern imports.

Unlike Far Eastern imports, European imports into the Port of Miami have for the past decade grown at a rate which far exceeded that of any other major Eastern U.S. market served by a major containerized cargo port, even those markets where Total Personal Income growth has been as much as double the Miami CMSA's.

The following table compares Annual Total Personal Income growth between 1990 and 2000 in key markets to annual growth in European imports expressed in loaded TEU's (as opposed to short tons given the available comparative data).

Market Area	**Total Personal Income Compound Annual Growth (1990-2000)**	European Imports Loaded TEU's Compound Annual Growth (1991-2000)
Miami CMSA	**2.45%**	15.40%
Savannah MSA + Atlanta MSA	5.53%	9.28%
New York/New Jersey CMSA	1.70%	8.21%
Norfolk MSA	2.68%	6.82%

Source: U.S. Department of Commerce; PIERS

The Port of Miami's European imports grew at more than 6.0 times the rate of the region's Personal Income growth in comparison to 1.7 times for Savannah/Atlanta, 4.8 times for New York, and 2.5 times for Norfolk. The Port of Miami's European imports grew at an annual which was more than six percentage points above Savannah's rate of growth despite the fact that the Savannah/Atlanta market's ability to consume goods grew at a rate more than double the Miami CMSA's.

It is clear that the Port of Miami's tremendous growth in European imports over the past several years is driven by factors which are not entirely quantifiable. We believe one key factor in driving European trade in Miami (and clearly not to the detriment of the other major east coast container ports given their significant albeit slower growth in European trade) is the ability of Miami traders to tap into new and varied supply networks. Indeed, Miami's success is driven by a more traditional driver of trade - relationships; as quaint as that might sound in this electronic and global age. These relationships are largely the result of the multi-ethnic and multi-lingual nature of the region, the relative affluence and high education level of these groups, and particularly strong European language and ethnic ties. This is the one factor which sets Miami apart from each of the other east coast markets served by a major container port with the notable exception of New York (although New York's immigration is now driven to a much greater extent by Far Eastern, Southeast Asian and African born peoples than was the case during previous generations). While hard data does not exist on the nature or extent of these relationships, there are some facts which tend to support this notion.

According to the Immigration and Naturalization Service, the Miami metro area in 2001 was the third ranked metro area behind Los Angeles and New York as the intended place of residence for legal immigrants. This is despite the fact that Miami-Fort Lauderdale is only

the 12th largest metropolitan area in the nation. Of a total 65,011 legal immigrants in 2001 who intended on settling in the Miami-Fort Lauderdale CMSA (excluding Canadian immigrants) 68 percent were from a country where the principal language was of European origin. This compares to 59 percent for Los Angeles and 44 percent for New York. Additionally, the second home market in Miami and Miami Beach is heavily driven by affluent international purchasers. Major developers report that over 70 percent of all condominiums priced over $300,000 in the City of Miami are being sold as second homes to international buyers (largely Latin American and European), and as much as 30 to 40 percent in the City of Miami Beach are being sold to this group (principally European).

In sum, there is no quantitative or qualitative support for halving the growth of European imports from its historic pace (as the Corps is projecting). However, we do believe that for the sake of being conservative, and because of the extraordinary growth in the past which is not entirely quantifiable, a more moderate rate than the historical trend is reasonable to use in projections. Therefore, we would suggest that an 11 to 12 percent growth rate as opposed to the historic 15 percent rate be used with regard to projecting European growth for at least the next ten year period.

Attachment C

Comparison of Projected Growth Rates in June 1989 Feasibility Study with Actual Growth Rates (Short Tons)
Port of Miami, Florida

IMPORTS	1990 USACE	Actual 1990	Difference	% Difference	2000 USACE	Actual 2000	Difference	% Difference
Caribbean	152,800	259,214	106,414	170%	194,800	313,280	118,480	161%
Central America	292,500	412,452	119,952	141%	366,800	879,169	512,369	240%
Europe	350,600	502,519	151,919	143%	463,800	1,513,975	1,050,175	326%
Far East/Asia	225,100	278,654	53,554	124%	298,000	609,198	311,198	204%
Mid-East/Africa	16,600	30,035	13,435	181%	22,700	35,840	13,140	158%
South America	498,500	464,920	-33,580	93%	640,500	869,682	229,182	136%
	1,536,100	1,947,794	411,694	127%	1,986,600	4,221,144	2,234,544	212%

EXPORTS	1990 USACE	Actual 1990	Difference	% Difference	2000 USACE	Actual 2000	Difference	% Difference
Caribbean	752,700	595,982	-156,718	79%	901,200	894,252	-6,948	99%
Central America	325,100	356,024	30,924	110%	405,600	719,388	313,788	177%
Europe	66,400	218,188	151,788	329%	90,200	344,650	254,450	382%
Far East/Asia	48,500	23,127	-25,373	48%	66,800	278,311	211,511	417%
Mid-East/Africa	13,500	32,800	19,300	243%	16,900	9,042	-7,858	54%
South America	648,700	339,797	-308,903	52%	781,200	1,017,768	236,568	130%
	1854900	1,565,918	-288,982	84%	2261900	3,263,411	1,001,511	144%
TOTAL	3,391,000	3,513,712	122,712	104%	4,248,500	7,484,555	3,236,055	176%

Note: Comparison does not include North American trade, which was not factored into the 1989 USACE Analysis

Source: Navigation Study for Miami Harbor Channel, Florida, Feasibility Report, June 1989; Port of Miami-Dade, 2002

BISCAYNE BAY PILOTS
Serving the Port of Miami since 1911

2911 PORT BOULEVARD, • MIAMI, FLORIDA 33132 • TELEPHONE (305) 379-9483 • CABLE: MIAMIPILOT

4/7/99 -
Nancy -
This was given to me by Capt. Fernandez at yesterdays Waterways Committee meeting. They (the Pilots) consider it valid.
Y.I.
John Pearce
(4851)

October 23, 1997

Mr. Claude Bullock
Assistant Port Director
1015 N. America Way
Miami, Florida 33132

Dear Claude,

In order to assist the seaport in determining its needs for future dredging projects, the Biscayne Bay Pilots Association submits the following recommendations. We believe that as the channel is deepened it is vitally important that the channel also be widened. As you know Miami is one of the busiest ports in the nation. Last year our association handled over 9800 ship movements. The worlds largest cruise and container ships call here on a regular basis.

We have identified three specific areas in the channel that need to be widened. I have enclosed charts for each of these areas and highlighted that portion of the channel we feel should be widened.

The first and most critical area is the main channel entrance at Outer Bar Cut. The currents in this area are variable and unpredictable, putting large deep draft vessels are at risk when making their approach to Miami. Several Maersk container vessels have already grounded off of buoy "1". Our recommendation is to create a tapered entrance channel with an 800 foot wide entrance.

The second area of concern is on the south side of government cut between beacon 13 and beacon 15. This is an area where ships are turning from one channel into another. The strong currents in this area compounded by the necessity for the ship to have as little speed as possible, makes it important for the ship to have as much swinging room as possible. On at least three occasions that I know of, tugboats assisting ships in this area have grounded and sustained damage. Our recommendation is to widen the channel as much as possible between beacons 13 and 15.

Finally, Lummus Island Cut just south of the gantry crane area should be widened. At the present time ships transiting this area pass extremely close to vessels docked at the gantry berths. This results in a "surging" effect on the ships at the dock. Also, all too frequently, we are encountering vessels docked at Lummus Island with their cranes swung outboard 90 degrees

thereby blocking a portion of the channel. Given the variables of wind, current, ship size, draft, etc., this creates an unsafe condition. Our recommendation is to extend the southern edge of Lummus Island Cut 100 feet further to the south.

I am certain that these critical channel improvements will enhance the commercial viability of the Port of Miami. Please feel free to call me if you have any questions.

Sincerely,

Robert K. Brownell
Chairman
Biscayne Bay Pilots

Encl.: 2
cc: Captain of the Port

BISCAYNE BAY PILOTS
Serving the Port of Miami since 1911

2911 PORT BOULEVARD · MIAMI, FLORIDA 33132 · TELEPHONE (305) 375-9453 · CABLE: MIAMPILOT

J 5
b

July 20, 2001

Richard E. Bonner, P.E.
Deputy District Engineer
For Project Management
Department of the Army
P.O. Box 4970
Jacksonville, Fl. 32232-0019

Dear Mr. Bonner,

Please be advised that the Biscayne Bay Pilots approve the proposed modifications to the alternatives 1,2,3 and 5.

Should you need further assistance please feel free to call on Captain McDonald or myself.

Sincerely,

John R. Fernandez,
Chairman
Biscayne Bay Pilots

JS
RP
Perez

BISCAYNE BAY PILOTS
Serving the Port of Miami since 1911

2911 PORT BOULEVARD · MIAMI, FLORIDA 33132 · TELEPHONE (305) 375-9453 · CABLE: MIAMIPILOT

May 14, 2003

Mr. Rene Perez
Project Manager
U.S. Army Corps of Engineers
PO Box 4970
Jacksonville, Florida 32232

Dear Mr. Perez:

The Miami harbor pilots wholeheartedly endorse all components of the Locally Preferred plan to deepen and widen the Miami ship channel.

Large newly constructed vessels are routinely arriving at ports of call with drafts in excess of 46 feet. If the Seaport of Miami is to remain a viable and competitive destination for ocean-going commerce on the eastern seaboard then the outer channel should be dredged to preferably 52 feet and the inner channel deepened to 50 feet.

The proposed widening of the channel (cut 1 from 500 feet to 800 feet) is needed to ensure safe transit of the large post panamax ships. With a length of 1138 feet and a beam of 141 feet, these vessels will encounter strong cross currents requiring a leeway or crab angle of 10 to 15 degrees to stay in the channel. This significantly increases the effective beam. Widening Fishermen's Channel an additional 100 feet is another critical "must." The present 500 foot channel provides only 100 to 120 feet of open water clearance if a large beamed vessel (141 feet) using tug assistance was to pass another berthed vessel of similar beam. Increasing the width would reduce the surge affect, increase clearance and should allow for safe routine passages.

If the Miami pilots can be of any assistance please contact us.

Thank you.

Yours truly,

Michael M. Wiegert

Michael M. Wiegert
Vice Chairman

August 9, 2001

Planning Division
Plan Formulation Branch
Navigation Section

Commander, Seventh Coast Guard District (oan)
ATTN: (Mr. Joe Embres)
Chief, Planning and Marine Information Section
Aids to Navigation and
Waterways Management Branch
909 Southeast 1st Avenue (Rm 406)
Miami, Florida 33131

Dear Sir:

We request your review of the enclosed figures 1-7 containing proposed modifications to Miami Harbor. Provide an estimate for initial and annual navigational aids costs for the enclosed plans. Since the plan formulation process may eliminate some alternatives, please breakdown your estimate by the following alternatives:

- Alternative 1C - Figure 1 shows Alternative 1C which increases the entrance channel width from 500 feet to 800 feet over a distance of about 900 feet and then tapers back to the 500-foot width about 2000 feet from the beginning of the existing channel.

- Alternative 2A - Figure 2 contains a widener labeled Alternative 2A near beacon #15.

- Alternative 3B - Figure 2 also contains Alternative 3B which enlarges the Fisher Island Turning Basin to the area shown in the dark blue color.

- Alternative 4 - Figure 3 includes Alternative 4 which shifts the channel alignment to the south. Figure 4 contains the west end of alternative 4.

- Alternative 5 - Figure 5 includes sheet 1 of 2 for Alternative 5 which adds a 100-foot widener to the south of the existing Lummus Island Cut or Fisherman's Channel. Figure 6 has sheet 2 of 2 for Alternative 5 which reduces the diameter of the existing Lummas Island Turning Basin and adds a widener to the west end of the proposed turning basin.

- Alternative 6 - Figure 7 contains alternative 6 which adds a 1200-foot diameter turning basin and extends the Federal channel to the west end of Dodge Island.

A drawing showing the entire Miami Harbor system of Federal channels is also enclosed. If you have any questions or need clarification on the above matter, contact Dick Powell at 904-232-1694.

Sincerely,

James C. Duck
Chief, Planning Division

Enclosures

bcc: CESAJ-DP-I (J. Scarborough)
EN-DL (B. Henderson)

RBP Powell/PD-PN/1694/slw 8/9/01
Schmidt/PD-PN
Strain/PD
Henderson/EN-DL
Scarborough/DP-I
Duck/PD

L:\group\pdp\rbp\USCG_LTR_Miami GRR.doc

U.S. Department of Transportation
United States Coast Guard

Commander
Seventh Coast Guard District

909 S.E. 1st Avenue
Miami, FL 33130-3050
Staff Symbol: (oan)
Phone: (305) 415-6730
FAX: (305) 415-6757

16500
Serial #: 1906
31 Oct 01

Mr. James C. Duck
Chief, Planning Division
Jacksonville District Corps of Engineers
P.O. Box 4970
Jacksonville, FL 32232-0019

Dear Mr. Duck:

Thank you for your letter of August 9, 2001 regarding possible aid to navigation changes required as a result of your proposed modifications to Miami Harbor.

After review of the proposed plans, outlined below are the costs for changes to aids to navigation associated with each plan.

ALT 2A – Relocation of several buoys, no cost.

ALT 2A – Relocate Light 15 to the center of the widener. Cost $150,000, annual maintenance $15,000. Due to water depth work will need to be done by a private contractor.

ALT 3B – Relocate 1 Light. Cost $7,100

ALT 4 – No changes

ALT 5 – Relocate 1 Light. Cost $7,100
Discontinue 1 Light. Cost $1,100

If you have any questions, please do not hesitate to call me at (305) 415-6730.

J.B. EMBRES
Chief, Planning and Marine Information Section
Aids to Navigation Waterways Management Branch
Seventh Coast Guard District
By direction of the District Commander

The attached Excel workbook contains the casualty data for the area you described for Miami Harbor for Calendar Years 1992 through 2001. These data were taken from our Marine Safety Management System (MSMS Sybase NT) which contains data up to 13 December 2001.

Our analysis techniques and methods involve writing SQL for extracting data, which limits our finding data for specific locations to those in the shape of squares or rectangles, and not polygons of asymmetric shape. Our moving to GIS capability over the next several months will allow us that capability.

May I call your attention to the fields pri_nature and events 1 through 4. Pri_nature is a single statement of evaluation of the casualty and is subject to interpretation from investigator to investigator. Events 1 through 4 are a sequence of events as they occurred to the vessel in the casualty. Some vessels may be involved in a casualty and yet do not have a chain of events associated with them - this may be due to the vessel being involved causally (maneuvering caused the other vessel to ground) or the casualty/incident did not meet specific reporting or investigation criteria.

Please contact me if you have any questions regarding these data. I remain at your service.

James G. Law
Operations Research Analyst, U.S.Coast Guard
Compliance Analysis Division (G-MOA-2)
Office of Investigations and Analysis, Field Operations Directorate
Assistant Commandant for Marine Safety, Security and Environmental Protection
US Coast Guard Headquarters room 2407
(Voice: 1-800-842-8740 ext. 7-2612 or 202-267-2612
+ Fax: 202-267-1416
- Email: jlaw@comdt.uscg.mil

Visit our office website at:
http://www.uscg.mil/hq/g-m/moa/casualty.htm
or the Oil Spill Compendium at:
http://www.uscg.mil/hq/g%2dm/nmc/response/stats/aa.htm

incident_dt	location	service	pri_nature
19-Jan-01	PORT OF MIAMI	PASSENGER	FIRE
25-Dec-93	PORT OF MIAMI	PASSENGER	COLLISION
13-Mar-93	MIAMI SHIP CHANNEL	PASSENGER	ALLISION
14-Oct-96	PORT OF MIAMI	PASSENGER	FIRE
15-Oct-96	PORT OF MIAMI	PASSENGER	FIRE
3-Jan-98	UNDERWAY	PASSENGER	EQUIP FAIL
27-May-93	MIAMI, FL	FREIGHT SHIP	GROUNDING
18-Jul-95	GOVERNMENT CUT ENTRANCE	FREIGHT SHIP	EQUIP FAIL
27-Sep-95	CG BASE MIAMI BEACH FL	FREIGHT SHIP	ALLISION
16-Feb-97	PORT OF MIAMI	PASSENGER	EQUIP FAIL
26-Dec-97	MIAMI ANCHORAGE	FREIGHT SHIP	GROUNDING
14-Dec-95	MIAMI ANCHORAGE	FREIGHT SHIP	CAPSIZE
12-Oct-97	MIAMI BEACH	FREIGHT SHIP	GROUNDING
23-Aug-98	MIAMI ANCHORAGE	FREIGHT SHIP	EQUIP FAIL
29-Jun-99	PORT OF MIAMI ANCHORAGE	FREIGHT SHIP	COLLISION
21-Sep-95	MARKER 25 ICW PORT OF MIAMI	FREIGHT SHIP	POLLUTION
13-Jan-94	PORT OF MIAMI, FLORIDA	FISHING BOAT	GROUNDING
21-Sep-96		FREIGHT SHIP	GROUNDING
6-Mar-93	DODGE ISLAND, MIAMI, FL	FREIGHT SHIP	FLOODING
12-Jan-99	MIAMI BEACH/SOUTH POINT	FREIGHT SHIP	GROUNDING
8-Oct-95	GOVERNMENT CUT	FREIGHT SHIP	GROUNDING
20-Jul-98	MIAMI SEABUOY	PASSENGER	FIRE
23-Sep-99	GOVERMENT-CUT - POM	FREIGHT SHIP	GROUNDING
15-Aug-94	MIAMI ANCHORAGE	FREIGHT SHIP	GROUNDING
22-Oct-00	MIAMI ANCHORAGE	FREIGHT SHIP	SINKING
31-Jan-97	PORT OF MIAMI TERMINAL 2	PASSENGER	ALLISION
27-Jan-00		FREIGHT SHIP	FIRE
18-Nov-00	MIAMI BEACH MARINA	PASSENGER	EQUIP FAIL
22-Sep-93	MIAMI RIVER	FREIGHT SHIP	ALLISION
8-Oct-98	MIAMI BEACH MARINA	PASSENGER	EQUIP FAIL
30-Sep-98	MIAMI RIVER	FREIGHT SHIP	COLLISION
27-Dec-98	GOVERNMENT CUT CHANNEL	FREIGHT SHIP	EQUIP FAIL
25-Dec-99	MIAMI MAIN ENTRANCE CHANNEL	PASSENGER	EQUIP FAIL
15-Dec-99		FREIGHT SHIP	ALLISION
6-Aug-00	FISHER ISLAND SLIP	TOWBOAT/TUGBOAT	EQUIP FAIL
19-Oct-92		RECREATIONAL	SINKING
21-Nov-92	VENETIAN CAUSEWAY BRIDGE	TOWBOAT/TUGBOAT	ALLISION
21-Nov-92	VENETIAN CAUSEWAY BRIDGE	FREIGHT BARGE	ALLISION
11-Aug-94	DODGE ISLAND BRIDGE	TANK BARGE	ALLISION
8-Mar-95	FISHERMANS CHANNEL	TOWBOAT/TUGBOAT	ALLISION
24-Oct-95	MIAMI	TOWBOAT/TUGBOAT	STRUCT FAIL
25-Aug-96	MIAMI BEACH, ICW	PASSENGER	EQUIP FAIL
12-Feb-98	N MIAMI BEACH	RECREATIONAL	SINKING
22-Jun-98	WATSON ISLAND	FISHING BOAT	EXPLOSION
6-Jun-98	GOVERNMENT CUT, MIAMI	PASSENGER	CAPSIZE
18-Nov-99	SUNSET HARBOR MARINA	PASSENGER	COLLISION
20-Jan-00	PORT OF MIAMI, FL	PASSENGER	EQUIP FAIL
11-Dec-99	SW 2ND AVE BRIDGE MIAMI RIVER	TOWBOAT/TUGBOAT	ALLISION
11-Dec-99	SW 2ND AVE BRIDGE MIAMI RIVER	TANK BARGE	ALLISION
11-Dec-99	SW 2ND AVE BRIDGE MIAMI RIVER	TOWBOAT/TUGBOAT	ALLISION
25-Aug-00	FISHER ISLAND FERRY LANDING	PASSENGER	EQUIP FAIL

4-Nov-00	MIAMI - GOV'T CUT	PASSENGER	EQUIP FAIL
26-Jan-01	MIAMI, FL - GOV'T CUT	PASSENGER	EQUIP FAIL
10-Feb-01	MIAMI, FL	PASSENGER	EQUIP FAIL
3-Feb-01	MIAMI, FL (GOV'T CUT)	PASSENGER	EQUIP FAIL
11-Mar-01	MIAMI, FL - GOV'T CUT	PASSENGER	EQUIP FAIL
19-Mar-01	MIAMI, FL - GOV'T CUT	PASSENGER	EQUIP FAIL
15-Feb-01	PORT OF MIAMI	TANK BARGE	GROUNDING
15-Feb-01	PORT OF MIAMI	TOWBOAT/TUGBOAT	GROUNDING
28-Apr-01	MIAMI, FL - GOV'T CUT	PASSENGER	EQUIP FAIL
19-May-01	CAUSEWAY ISLAND, MIAMI, FL	PASSENGER BARGE	ALLISION
19-May-01	CAUSEWAY ISLAND, MIAMI, FL	COMMERCIAL	ALLISION
1-Oct-01	GOVERNMENT CUT	PASSENGER	EQUIP FAIL
18-Jun-92	GOVERNMENT CUT, MIAMI, FL	TOWBOAT/TUGBOAT	GROUNDING
15-Oct-94	1200 WEST AVE. FORTE APTS.	RECREATIONAL	POLLUTION
1-Mar-94	LUMMUS ISLAND	FREIGHT SHIP	ALLISION
19-Jul-95	WEST VENETIAN BRIDGE	TOWBOAT/TUGBOAT	ALLISION
31-Jul-95	PORT OF MIAMI	TOWBOAT/TUGBOAT	CAPSIZE
9-Sep-95	JULIA TUTTLE AND VENETIAN CSYS	TOWBOAT/TUGBOAT	ALLISION
9-Sep-95	JULIA TUTTLE AND VENETIAN CSYS	FREIGHT BARGE	ALLISION
27-Sep-95	CG BASE MIAMI BEACH FL	PUBLIC VESSEL,UNC.	ALLISION
8-Oct-95	GOVERNMENT CUT	TOWBOAT/TUGBOAT	GROUNDING
8-Oct-95	GOVERNMENT CUT	TOWBOAT/TUGBOAT	GROUNDING
2-Dec-95	MIAMI ANCHORAGE	TOWBOAT/TUGBOAT	COLLISION
2-Dec-95	MIAMI ANCHORAGE	FREIGHT BARGE	COLLISION
2-Dec-95	MIAMI ANCHORAGE	RECREATIONAL	COLLISION
8-Mar-96	GOVERNMENT CUT	TOWBOAT/TUGBOAT	GROUNDING
16-Oct-96	SOUTH CHANNEL - P.O.M.	TOWBOAT/TUGBOAT	ALLISION
17-Dec-96	GOVERNMENT CUT BUOY #16	TOWBOAT/TUGBOAT	ALLISION
17-Dec-96	GOVERNMENT CUT BUOY #16	TOWBOAT/TUGBOAT	ALLISION
17-Dec-96	GOVERNMENT CUT BUOY #16	FREIGHT SHIP	ALLISION
19-Mar-97	BAKERS HAULOVER INLET BRIDGE	TOWBOAT/TUGBOAT	ALLISION
16-Apr-97	HAULOVER	PASSENGER	GROUNDING
3-Dec-97	HAULOVER	PASSENGER	GROUNDING
2-Dec-97	PORT OF MIAMI	PASSENGER	COLLISION
2-Dec-97	PORT OF MIAMI	RECREATIONAL	COLLISION
22-Mar-98	GULF OF MEXICO/MIAMI	TANK BARGE	STRUCT FAIL
22-Mar-98	GULF OF MEXICO/MIAMI	OSV	STRUCT FAIL
29-Mar-98	MIAMI HARBOR CHANNEL ENTRANCE	PASSENGER	EQUIP FAIL
22-Jun-98	WATSON ISLAND MARINA	FISHING BOAT	EXPLOSION
27-Jun-98	MIAMI ANCHORAGE	FREIGHT SHIP	EQUIP FAIL
12-Oct-98	MIAMI SOUTH CHANNEL/CUMMUS CUT	PASSENGER	EQUIP FAIL
22-Oct-98	PORT OF MIAMI ENTRANCE CHANNEL	PASSENGER	EQUIP FAIL
31-Oct-98	BISCAYNNE BAY, FL	PASSENGER	EQUIP FAIL
30-Dec-98	HAULOVER INLET, MIAMI BEACH	FREIGHT BARGE	ALLISION
26-Apr-99		PASSENGER	EQUIP FAIL
29-Jun-99	PORT OF MIAMI ANCHORAGE	INDUSTRIAL VESSEL	COLLISION
3-Jul-99		PASSENGER	EQUIP FAIL
20-Aug-99	TERMINAL 12, PORT OF MIAMI	INDUSTRIAL VESSEL	POLLUTION
20-Aug-99	PORT OF MIAMI/	INDUSTRIAL VESSEL	SINKING
15-Dec-99		TANK BARGE	ALLISION
25-Dec-93	PORT OF MIAMI	TANK SHIP	COLLISION
8-Mar-95	FISHERMANS CHANNEL	TANK BARGE	ALLISION

18-Nov-99	SUNSET HARBOR MARINA	RECREATIONAL	COLLISION
22-Sep-93	MIAMI RIVER	TOWBOAT/TUGBOAT	ALLISION
22-Sep-93	MIAMI RIVER	TOWBOAT/TUGBOAT	ALLISION
1-Mar-94	LUMMUS ISLAND	FREIGHT SHIP	ALLISION
19-Jul-95	WEST VENETIAN BRIDGE	FREIGHT BARGE	ALLISION
19-Mar-97	BAKERS HAULOVER INLET BRIDGE	FREIGHT BARGE	ALLISION
30-Sep-98	MIAMI RIVER	TOWBOAT/TUGBOAT	COLLISION
30-Sep-98	MIAMI RIVER	TOWBOAT/TUGBOAT	COLLISION
30-Sep-98	MIAMI RIVER	FREIGHT SHIP	COLLISION
30-Dec-98	HAULOVER INLET, MIAMI BEACH	TOWBOAT/TUGBOAT	ALLISION

MIAMI-DADE WATER AND SEWER DEPARTMENT
4200 Salzedo Street, Coral Gables, Florida 33146 • Tel: 305-669-3700

SERVE • CONSERVE

March 20, 2001

Department of the Army
Jacksonville District Corps of Engineers
P.O. Box 4970
Jacksonville, FL 32232-0019

Attn: Richard Bonner, P.E.
Deputy District Engineer for Project Management

Re: 54 inch Force Main Relocation Crossing
Government Cut between Miami Beach and Fisher Island

Dear Mr. Bonner:

Thank you for the positive response to our request to have the subject relocation done by the USACE as ancillary work to the proposed Government Cut Deepening Project. It is understood that the port deepening project is not definite at this time, with the study not due to be completed until August 2001. The County would like to go ahead with the preparation of an agreement and scope of work as offered in your letter. It is also understood that the agreement would be between the USACE and the local sponsor, Miami-Dade County/Port of Miami and that the transfer of any funds for this project would be between the local sponsor and the USACE.

Having the 54 inch force main relocation as ancillary work has several advantages. As you indicated, the relocation must be done prior to the dredging, so the schedule coordination will be easier with both projects being managed by the USACE. In addition, the design coordination should be more efficient with a single project manager. Additionally, the construction sequence and overall program management should benefit from engineers experienced in port operations as well as dredging and pipeline construction. We see this partnership in a very positive way with many advantages for both Miami-Dade County and USACE.

As a matter of clarification, both the Port of Miami and Miami-Dade Water and Sewer Department (WASD) are departments of Miami-Dade County, a political sub-division within the State. As such, the local sponsor Miami-Dade County/Port of Miami would include the Miami-Dade Water and Sewer Department. All funding from this project will come from the Miami-Dade Water and Sewer Department through the Port of Miami.

I have contacted Charles Towsley at the Port of Miami to alert him of our intentions and the need for the Port to be involved in the process. John Chorlog, Assistant Director, Wastewater (305)-669-3743 and Carl Fielland, Chief Engineer with the Port will be the primary contacts at Miami-Dade County on this project.

Sincerely,

William M. Brant, P.E.
Director

cc: C. Towsley, Port of Miami
C. Fielland, Port of Miami
J. Chorlog, WASD
H. Codispoti, WASD

MIAMI-DADE WATER AND SEWER DEPARTMENT
P.O. Box 330316, Miami, Florida 33233-0316 • 3575 S. LeJeune Road • Tel: 305-665-7471

Jerry S

SERVE • CONSERVE

October 23, 2000

Ms. Lauren P. Milligan
Environmental Specialist
Office of Beaches and Coastal Systems
Department of Environmental Protection
Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

RE: DEP File No.: 0173770-001-, EI, Dade County
Applicant: U.S. Army Corps of Engineers
Project: Miami Harbor Channels
Maintenance Dredging

Dear Ms. Milligan:

WASD has subaqueous facilities at the following locations not shown on the Corps of Engineers drawings:

1.) A 54-inch sewer force main penciled in on Corps Drawing No. 8. This is the main from South Beach to Fisher island which was broken by a pile driving contractor on June 22, this year. As-built ES-4605 shows a top of pipe elevation of minus 50.0 feet. Proposed dredging depth is minus 44.0 feet plus a 2 foot allowable over dredge to a total cut of minus 46.0 feet.

2.) A 20-inch water main penciled in on Corps Drawing No. 9. This main goes from Terminal Island to Lummus Island. WASD as-built E-2326 only goes to the Lummus Island deed line, where it may change ownership to the City of Miami Beach. Their as-built UW73C shows a top of pipe at minus 48.0 feet. Proposed dredging depth is minus 38.0 feet plus a 2 foot allowable over dredge to a total cut to minus 40.0 feet.

3.) A continuation of the above mentioned 20-inch water main crossing Fisherman's Channel, from Lummus Island to Fisher Island penciled in on Corps Drawing No. 14. As-built E-2326 shows a top of pipe elevation of minus 53.8 feet. Proposed dredging depth is minus 44.0 feet plus a 2 foot allowable over dredge to a total cut to minus 46.0 feet

All three (3) mains are in conflict with any dredging of the channel sides.
As-built locations will have to be field verified, which could be a long and costly process.

Sincerely,

John W. Chorlog, P.E.
Assistant Director, Engineering/
Planning

JWC/RAJ/as

Enclosures: USACOE Drawings Nos. 8, 9 and 14

c: Richard E. Bonner, P.E., Deputy District
Engineer, US Army Corps of Engineers
Craig K. Grossenbacher, Coastal Resources Section Chief,
Miami-Dade County, Environmental Resources Management

HrbrChan

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960

January 14, 2003

James C. Duck
Chief, Planning Division
U.S. Army Corps of Engineers
Post Office Box 4970
Jacksonville, Florida 32232-0019

Dear Mr. Duck:

As discussed in the September 17, 2002, teleconference with the U.S. Army Corps of Engineers (Corps), the Fish and Wildlife Service (Service) is providing supplemental recommendations to those listed in our Draft Fish and Wildlife Coordination Act (FWCA) Report dated July 24, 2002, for the proposed Miami Harbor Expansion Project located in Miami-Dade County, Florida. This letter is submitted in accordance with provisions of the FWCA of 1958 (48 Stat. 401, as amended; 16 U.S.C. 661 *et seq.*). The supplemental recommendations discussed in this letter will be included in the Final FWCA report.

History

As stated in the Draft FWCA Report, the Corps estimates that a total of 446.4 acres of aquatic resources, including seagrass communities, unvegetated softbottom, hardbottom, and coral reef habitat will likely be adversely affected as a result of construction activities associated with the expansion of Miami Harbor. Specifically, 6.3 acres of seagrass; 236.4 acres of unconsolidated/ unvegetated benthic habitat (softbottom); 123.5 acres of rock/rubble bottom; 31.4 acres of low relief hardbottom; and 20.7 acres of high relief hardbottom and coral reef habitat may be adversely affected. A portion of the acreage occurs in areas that were impacted during previous dredging activities within Miami Harbor.

The Corps has proposed mitigation for the impacts to hardbottom reefs which were not dredged under previous authorizations, as follows: (1) mitigate for the removal of 2.7 acres of high-relief coral reef habitat at a ratio of 2:1 through the creation of 5.3 acres of high-relief artificial reef habitat based on the National Oceanic and Atmospheric Administration's (NOAA) Habitat Equivalency Analyses (HEA and (2) mitigate for the 0.6 acre of impact to low-relief hardbottom habitat at a ratio of 1.3:1 through the creation of 0.8 acre of low-relief artificial hardbottom habitat.

However, the Corps has not proposed compensation for the removal of the biotic communities, which have colonized the channel hardbottom following the 1990 Miami Harbor dredging event. The Service believes that compensation for the temporal loss of habitat value of previously dredged low and high-relief hardbottom should also be added to the hardbottom mitigation acreage proposed for new impacts to those habitats.

In the Draft FWCA Report for the Miami Harbor Expansion Project, the Service based its hardbottom mitigation recommendations on acreage calculations that omitted impacts to previously impacted low and high-relief hardbottom (Table 1). Therefore, we are supplementing our hardbottom compensation recommendations, as discussed below.

Table 1: Draft FWCA Hardbottom Impact Acreage Summary.

Habitat type	Low-relief hardbottom (previously dredged)	High-relief hardbottom (previously dredged)	Low-relief hardbottom (new impacts)	High-relief hardbottom (new impacts)
Proposed impact acreage	30.7	18.0	0.6	2.7
Proposed mitigation (acres)	0	0	0.8	5.3
			Total= 6.1 acres	
Draft FWCA Report mitigation recommendations (acres)	0	0	4.3 (incl. 2.66 acres of side-wall impacts)	5.3
			Total= 9.6 acres	

Supplemental Recommendations

The Service conducted a Mitigation Bank Review Team (MBRT) analysis to determine the mitigation acreage for previously impacted hardbottom habitat (Table C-1, enclosed). Using a temporal loss factor of 12 years for full functional habitat recovery, the creation of 68.04 acres (58.44 acres for temporal loss of previously mitigated hardbottom plus 9.6 acres for new hardbottom impacts) artificial reef would meet the hardbottom mitigation requirements. However, approximately 48.7 acres of similar habitat base (low relief hardbottom, rock rubble) will remain on the channel bottom after dredging that will likely be recolonized and/or utilized by similar affected biotic communities. Thereby, the remaining 48.7 channel bottom acres could then be subtracted from the 68.04 acres (MBRT temporal loss mitigation acres), which would result in a deficit of 9.74 acres to be fulfilled by "outside-of-channel footprint" hardbottom artificial reef creation. Therefore, if you add the 9.97 acres of outside-of-channel footprint hardbottom to the 9.6 acres of new-impact hardbottom mitigation as recommended in the Draft FWCA report, the Service's total recommended supplemental hardbottom mitigation is 19.34 acres (Table 2).

Table 2: Summary of the Service's supplemental hardbottom mitigation recommendations

	Proposed impact acreage	Proposed mitigation (acres)		Draft FWCA Report Recommendations (acres)		Revised Draft FWCA Report Recommendations (acres)		
Low-relief hardbottom (previously dredged)	30.7	0		0		58.8 (MBRT)		**Post-dredging channel footprint**
High-relief hardbottom (previously dredged)	18.0	0		0			68.04 Total	48.7 Total
Low-relief hardbottom (new impacts)	0.6	0.8	6.1 Total	4.3	9.6 Total	9.6 (HEA)		
High-relief hardbottom (new impacts)	.27	5.3		5.3			**Total of supplement hardbottom mitigation recommended (Table 1+2)** 9.6+ 9.74 = 19.34	
Softbottom mitigation recommendation	23.3	0		0		23.3		

The Corps has not proposed mitigation for the permanent loss of shallow sandy bottom, which has not been previously dredged. The Service believes that, in southeast Florida in general, this is productive benthic habitat supporting diverse faunal assemblage, as documented and referenced in the Draft FWCA Report for the Port Everglades Navigation Project. Therefore, we recommend that the Corps consider minimization of impacts to shallow sandy bottom. If the impact acres cannot be minimized, then the Service recommends a mitigation ration of 1:1 for the impacts to 23.3 acres of shallow sandy bottom habitat. This may be accomplished by filling dredge holes or channels in Biscayne Bay and/or adjacent waterways. In addition, biological monitoring should be instituted in the sandy bottom mitigation areas.

To summarize, the Service is providing the following additional recommendations:

(1) A minimum of 19.3 acres of in-kind mitigation should be provided for hardbottom impacts to newly and previously dredged hardbottom habitat. This should be included in the hardbottom monitoring plan.

(2) In-kind mitigation should be provided for dredging 23.3 acres of shallow sandy softbottom habitat, at a ratio of 1:1, such as filling or partially filling existing dredge holes and/or abandoned channels in nearby waters.

In addition, the Service is providing the following modifications and clarifications to Section 8 of the Draft FWCA Report, as identified by report recommendation number:

(1) This recommendation addresses monitoring; however, we would like to clarify that the monitoring plan should encompass channel walls **and** previously dredged channel bottom, if it is to be an element of mitigation. Also, hardbottom reef sedimentation monitoring should be instituted during dredging regardless of the water column exemption for turbidity monitoring within the stated 150 foot mixing zone.

(5) Amend: *"Remove and relocate all ~~brain and star coral~~* hard coral colonies larger than 6 inches in diameter *within the ~~2.7 acres of high-relief coral reef impact area related to Component 1~~* project footprint (including the previously dredged areas) *by experienced personnel* through established methods *to suitable* nearby hardbottom substrate. *~~and include monitoring provisions~~."* Biological monitoring should be instituted.

(7) Reads as follows: *"The Service recommends decreasing the impact area as much as possible by narrowing the channel width as much as practicable. Likewise, impacts to reefs at the east end of the entrance channel should also be reduced as much as practicable."* The Service would like to emphasize this recommendation to reduce channel expansion in hardbottom, seagrass, and shallow sandy bottom habitats **prior** to the consideration of mitigation.

Thank you for the opportunity to provide these revisions. If you have any questions concerning these supplemental recommendations and clarifications of our Final FWCA Report, please contact Trish Adams at (772) 562-3909 extension 232.

Sincerely yours,

Allen D. Webb for

Linda S. Ferrell
Assistant Field Supervisor
South Florida Ecological Services Office

Enclosure

cc:
NMFS, Miami, Florida
FWC, Vero Beach, Florida
FWC, Tallahassee, Florida
DEP, Tallahassee, Florida